

AMENDMENTS TO THE CLAIMS

Please amend the claims to read as follows:

1. **(Currently Amended)** An anti-neoplastic pharmaceutical composition produced by a process comprising:
 - a) providing *Vernonia amygdalina* leaves;
 - b) soaking the leaves in water;
 - c) next, gently crushing the leaves, in the water, to produce a mixture;
 - d) filtering the mixture to produce a filtrate; ~~{and,}~~
 - e) separating the filtrate into fractions by at least one mode of chromatographic separation;
 - f) identifying the fractions having antineoplastic activity; and,
 - g) using at least one of the fractions having antineoplastic activity ~~{collecting the filtrate}~~ to produce an anti-neoplastic pharmaceutical composition.
2. **(Cancelled)**
3. **(Currently Amended)** The anti-neoplastic pharmaceutical composition of claim 1 ~~{2}~~ wherein the modes(s) of chromatographic separation is/are selected from the group consisting of: preparative reverse phase high-performance liquid chromatography, ion exchange chromatography, and reverse phase chromatography.
4. **(Currently Amended)** The anti-neoplastic pharmaceutical composition of claim 1 ~~{2}~~ produced by a process comprising sequential separation of the filtrate by two or more chromatographic modes.
5. **(Currently Amended)** The anti-neoplastic pharmaceutical composition of claim 1 ~~{2}~~ produced by a process comprising, in any order, sequential separation of the concentrated filtrate by preparative reverse phase high-performance liquid chromatography, ion exchange chromatography, and reverse phase chromatography.

6. **(Currently Amended)** The anti-neoplastic pharmaceutical composition of claim 1 ~~{2}~~ wherein the process comprises:

- 1) separating the filtrate into fractions by preparative reverse phase high-performance liquid chromatography (PRPC), to produce PRPC fractions, and identifying the PRPC fraction(s) having greatest potency against cancer cells;
- 2) separating the PRPC fraction(s), identified in step 1), by Ion exchange Chromatography (IEC) to produce IEC sub-fractions, and identifying the IEC sub-fraction(s) having greatest potency against cancer cells;
- 3) separating the IEC sub-fraction(s), identified in step 2), by reverse phase chromatography (RPC) to produce RPC sub-fractions;
- 4) identifying the RPC sub-fraction(s) having the greatest potency against cancer cells; and
- 5) collecting the RPC sub-fractions identified in step 4) to provide the anti-neoplastic pharmaceutical composition.

7. The product of claim 1 which comprises a peptide having the sequence of SEQ ID NO:1 and/or SEQ ID NO:2.

8. **(Currently Amended)** A method of preparing an anti-neoplastic pharmaceutical composition, the method comprising the steps of:

- a) providing *Vernonia amygdalina* leaves;
- b) soaking the leaves in water;
- c) gently crushing the leaves, in the water, to produce a mixture;
- d) filtering the mixture to produce a filtrate;
- e) separating the filtrate in to fractions by at least one mode of chromatographic separation;
- f) identifying the fractions having antineoplastic activity; and,
- g) using at least one of the fractions having antineoplastic activity ~~{collecting the filtrate}~~ to produce an anti-neoplastic pharmaceutical composition.

9. **(Cancelled)**

10. **(Currently Amended)** The method of claim 8 [9] wherein the mode(s) of chromatographic separation is/are selected from the group consisting of: preparative reverse phase high-performance liquid chromatography, ion exchange chromatography, and reverse phase chromatography.

11. **(Currently Amended)** The method of claim 8 [9] wherein the filtrate is subjected to two or more modes of chromatographic separation.

12. The method of claim 11 wherein the filtrate is subjected to, in any order, sequential separation by preparative reverse phase high-performance liquid chromatography, ion exchange chromatography, and reverse phase chromatography.

13. **(Currently Amended)** The method of claim 8 [9] comprising:

- 1) separating the filtrate into fractions by preparative reverse phase high-performance liquid chromatography (PRPC), to produce PRPC fractions, and identifying the PRPC fraction(s) having greatest potency against cancer cells;
- 2) separating the PRPC fraction(s), identified in step 1), by Ion exchange Chromatography (IEC) to produce IEC sub-fractions, and identifying the IEC sub-fraction(s) having greatest potency against cancer cells;
- 3) separating the IEC sub-fraction(s), identified in step 2), by reverse phase chromatography (RPC) to produce RPC sub-fractions;
- 4) identifying the RPC sub-fraction(s) having the greatest potency against cancer cells; and
- 5) collecting the RPC sub-fractions identified in step 4) to prepare the anti-neoplastic pharmaceutical composition.

14.-23. **(Cancelled)**